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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANKONG, DOHM

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,856

Applicant(s)

GARCIA-LUNA-ACEVES ET AL.

Examiner

Dohm Chankong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1> Applicant's amendment has been received and reviewed. Claims 2 and 10 have been cancelled. Claims 1, 3-9, and 11-14 are presented for further examination.

Response to Arguments

2> Applicant's arguments filed 11.23.2004 have been fully considered but they are not persuasive.

Applicant's amendment, and specifically, the limitation of advertising a route to an anycast address with a route to the unicast address introduces new matter and was not described in the specification. See the 35 U.S.C § 112 rejection that follows for further reasoning.

Furthermore, the primary reference [McCanne] discloses the added limitations. Applicant argues that because McCanne discloses a redirect functionality for the anycast translation, there would be no need to advertise both a route to both anycast and unicast addresses. However, McCanne discloses that the client requests content using an URL, the URL is mapped to an anycast address, the anycast address is resolved into an unicast address for the service node (SN) by an anycast referral node (ARN), the ARN sending the unicast address of the SN to the client, and finally, the client connecting to the node using the unicast address [column 10 «lines 36-50» | column 15 «line 59» to column 16 «line 35»]. Therefore, there is clearly a need for McCanne's router to be aware of both a route to the anycast address as well as the unicast address since the router connects the client to both the ARN and the SN, and therefore would be inherent in McCanne to advertise both anycast

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and unicast routing information [Figure 5 «item 506» where: McCanne's router needs to know the route to both the ARN (anycast) and the SN (unicast)].

Claim Rejections - 35 USC § 112

3> The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4> Claims 1,3-9 and 11-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1, 9 and 12 have been amended to include advertising a route to the anycast address with a route to the unicast address. However, Examiner could not find any mention of this functionality in the section and drawing specified by the Applicant, or the disclosure. The drawing relied upon by Applicant to support his claim that no new matter has been added instead refers to the limitation of advertising anycast route utilizing network layer unicast routing. This is clearly not analogous to advertising a route to both the anycast and unicast address.

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Claim Rejections - 35 USC § 103

5> The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7> Claims 1, 3-9, and 11-14 are rejected under 35 U.S.C. 102(e)/103(a) as anticipated by McCanne et al, U.S Patent No. 6,415,323 [“McCanne”] or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCanne.

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8> The reason for the 102/103 rejection is because the rejections rely on an interpretation of an element disclosed in the reference that can be construed as both an equivalent (inherent) to the claimed element and therefore anticipatory, as well as obvious to one of ordinary skill in the art to infer that the claimed element would have been essential to the prior art reference (due to the claimed functionality of the device). See the following rejections.

9> As to claim 1, McCanne discloses a method, comprising:

receiving a request for an information object at an address identified by a uniform resource locator (URL) [column 15 <lines 59-60>];

mapping the URL to a corresponding anycast address for the information object [column 15 <lines 59-65>];

resolving the anycast address for the information object to a unicast address for the information object [column 10 <lines 36-43> and column 16 <lines 9-12 and 27-29>];

advertising a route to the anycast address with a route to the unicast address [Figure 5 «item 506» | column 7 «lines 34-42» | column 15 «line 59» to column 16 «line 35» where: McCanne's router needs to know the route to both the ARN (anycast) and the SN (unicast) and therefore is inherent that a route to both the ARN and SN would be advertised to the router].

Furthermore it would have been obvious to advertise a route to the anycast address with a route to the unicast address. As McCanne does disclose a router that connects a client to both an anycast node as well as a service node [Figure 5 «item 506» | column 7 «lines 34-

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42» | column 15 «line 59» to column 16 «line 35»]. Therefore, the router must be aware of a route to both anycast and service nodes to be capable of routing the client to both the anycast and service nodes.

10> As to claim 3, McCanne discloses the method of claim 1 further comprising sending the information object to the client [column 16 <lines 9-12>].

11> As to claim 4, McCanne discloses the method of claim 3 wherein the request is received at an information object repository that is topologically closer to the client than any other information object repository [claim 10 where: the nodes in the anycast group are equivalent to an information object repository].

12> As to claim 5, McCanne discloses the method of claim 4 wherein the information object repository is selected according to specified performance metrics [column 17 <lines 48-58 and claim 8>].

13> As to claim 6, McCanne discloses the method of claim 5 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository [column 17 «lines 48-58» and claim 8].

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14> As to claim 7, McCanne discloses an information object repository configured to map a uniform resource locator (URL) for an information object to a network layer anycast address [column 14 <line 61> to column 15 <line 33>]; and

to advertise a route to the anycast address with a route to a unicast address [Figure 5 «item 506» | column 7 «lines 34-42» | column 15 «line 59» to column 16 «line 35» where: McCanne's router needs to know the route to both the ARN (anycast) and the SN (unicast) and therefore is inherent that a route to both the ARN and SN would be advertised to the router].

15> As to claim 8, McCanne discloses the information object repository of claim 8 being further configured to advertise the anycast address using a network layer anycast routing protocol [column 12 <lines 44-54> and column 20 <lines 40-52>].

16> Claim 9 is a claim to for a network with elements that perform the steps of the method of claim 1. Therefore, claim 9 is rejected for the same reasons as set forth for claim 1, *supra*.

17> Claim 11 is a claim for a network with an element that performs the step of the method of claim 4. Therefore, claim 11 is rejected for the same reasons as set forth for claim 4, *supra*.

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18> As to claim 12, McCanne discloses the network of claim 11 further comprising a Web router configured to select the information object repository that is closer to the requesting client than any other of the number of information repositories in the network without regard as to whether the information object is actually stored at the selected information object repository [column 19 <lines 14-26> and column 20 <lines 55-58>].

19> Claim 13 is a claim for a network with an element that performs the step of the method of claim 5. Therefore, claim 13 is rejected for the same reasons as set forth in above paragraph 8, for claim 5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S Patent No. 6,785,704 to McCanne.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC



Dung C. Dinh
Primary Examiner